CLAIMS

What is claimed is:

1	1. A rubber cylinder sleeve for an offset printing press, the rubber cylinder
2	sleeve comprising:
3	an inner carrier sleeve (2) having a circumferential and an axial direction,
4	the carrier expandable outwardly by an application of compressed air from the interior;
5	and
6	a single rubber layer (3) having an inner surface disposed on the inner
7	carrier sleeve (2) and an outer surface (7) for contacting a printing plate; the single
8	rubber layer (3) including
9	a plurality of compressible elements (8) for increasing the relative
10	compressibility K of the single rubber layer (3), and
11	a plurality of filaments (9) for increasing the stiffness S of the single rubber
12	layer (3),
13	the compressible elements (8) and the filaments (9) disposed distal from
14	the outer surface (7).
1	2. The rubber cylinder sleeve for an offset printing press of claim 1,
2	wherein the single rubber layer (3) has a thickness and a length
3	perpendicular to the thickness, and
4	wherein the compressible elements (8) are disposed uniformly in the
5	length and thickness of the single rubber laver (3) so that the relative compressibility K

6 of the single rubber layer (3) is equivalent through the thickness, the compressible 7 elements (8) disposed in the axial direction of the inner carrier sleeve (2). 1 3. The rubber cylinder sleeve for an offset printing press of claim 1, 2 wherein the single rubber layer (3) has a radial thickness and an inner and 3 an outer arcuate length, and 4 wherein the compressible elements (8) are disposed uniformly in the radial 5 thickness of the single rubber layer (3) and varying uniformly from a greater density at 6 the inner arcuate length to a lesser density at the outer arcuate length so that the 7 relative compressibility K of the single rubber layer (3) is equivalent through the radial 8 thickness, the compressible elements (8) disposed in the axial direction of the inner 9 carrier sleeve (2). 1 4. The rubber cylinder sleeve for an offset printing press of claim 1; 2 wherein the single rubber layer (3) includes a thickness and a length 3 perpendicular to the thickness, and 4 wherein the filaments (9) are disposed uniformly in the length and 5 thickness of the single rubber layer (3), the filaments (9) disposed in the circumferential 6 direction of inner carrier sleeve (2). 1 5. The rubber cylinder sleeve for an offset printing press of claim 1, 2 wherein the single rubber layer (3) has a radial thickness and an inner and

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an outer arcuate length, and

- wherein filaments (9) are disposed uniformly in the radial thickness of the single rubber layer (3) and varying uniformly from a greater density at the inner arcuate length to a lesser density at the outer arcuate length, the filaments (9) disposed in the circumferential direction of the inner carrier sleeve (2).
- 6. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the compressible elements (8) are air pockets.
- 7. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the compressible elements (8) are compressible fibers.
- 8. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the single rubber layer (3) is endless.
 - 9. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the single rubber layer (3) includes a joint (10).

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- 1 10. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the 2 single rubber layer (3) includes a gap (11).
- 1 11. The rubber cylinder sleeve for an offset printing press of claim 1, further
 2 comprising an adhesive bond between the single rubber layer (3) and the inner carrier
 3 sleeve (2).
- 1 12. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the 2 single rubber layer (3) is vulcanized to the inner carrier sleeve (2).

13. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the 1 filaments (9) have a length in the range of 10 mm to 30 mm. 2 14. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the 1 2 single rubber layer (3) includes a circumferential centerline; and wherein 3 the compressible elements (8) are more densely disposed in the single 4 rubber layer (3) between the centerline and the inner surface than in the single rubber 5 layer (3) between the centerline and the outer surface (7), and 6 a majority of the filaments (9) are more densely disposed in the single 7 rubber layer (3) between the centerline and the outer surface (7) than in the single 8 rubber layer (3) between the centerline and the inner surface. 1 15. The rubber cylinder sleeve for an offset printing press of claim 1, wherein the 2 compressible elements (8) are disposed in the single rubber layer (3) so that the relative 3 compressibility K of the single rubber layer (3) increases continuously from the outer 4 surface (7) to the inner surface, and the filaments (9) are disposed in the single rubber 5 layer (3) so that the stiffness S of the single rubber layer (3) increases continuously from the inner surface to the outer surface (7). 6 1 16. A single rubber layer for transferring an image in a printing press, the 2 single rubber layer comprising: 3 an inner surface for contacting a carrier sleeve; 4 an outer surface (7) for contacting a printing plate;

5	a compressible element (8) for increasing the relative compressibility K of
6	the rubber layer; and
7	a filament (9) for increasing the stiffness S of the single rubber layer;
8	the compressible element (8) and the filament (9) disposed distal from the
9	outer surface.
1	17. The single rubber layer for transferring an image in a printing press of
2	claim 16, wherein the single rubber layer (3) includes a circumferential centerline, and
3	wherein the compressible elements (8) are more densely disposed in the single rubber
4	layer (3) between the centerline and the inner surface than in the single rubber layer (3)
5	between the centerline and outer surface (7) and a majority of the filaments (9) are
6	more densely disposed in the single rubber layer (3) between the centerline and outer
7	surface (7) than in the single rubber layer (3) between the centerline and the inner
8	surface.
1	18. A printing cylinder assembly for an offset printing press, the printing
2	cylinder assembly comprising:
3	a printing unit cylinder (5) including a passage for compressed air from the
4	interior of the cylinder to the exterior;
5	an inner carrier sleeve (2) having a circumferential and an axial direction,
6	the carrier expandable outwardly by an application of compressed air from the printing
7	unit cylinder (5), the inner carrier sleeve (2) for fitting over the printing unit cylinder (5);
8	and

a single rubber layer (3) having an inner surface disposed on the inner		
carrier sleeve (2) and an outer surface (7) for contacting a printing plate, the single		
rubber layer (3) including		
a plurality of compressible elements (8) for increasing the relative		
compressibility K of the rubber layer, and		
a plurality of filaments (9) for increasing the stiffness S of the rubber layer,		
the compressible elements (8) and the filaments (9) disposed distal from		
the outer surface (7).		